

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims:

Claim 1 (Currently Amended): An immunogenic composition comprising:

- (a) an immunostimulating amount of a *Neisseria* antigen; and
- (b) an immunostimulating amount of an adjuvant composition comprising:

- (i) an oligonucleotide comprising at least one CG motif; and
 - (ii) an emulsion comprising submicron oil droplets and an emulsifying agent,

wherein the ratio of the emulsifying agent to the oil in said emulsion allows production of an emulsion wherein at least 80% of said oil droplets are less than 1 micron in diameter and wherein the oligonucleotide is at least 6 nucleotides in length and comprises at least one phosphorothioate bond and the CG motif comprises an unmethylated CpG dinucleotide.

Claim 2 (Original): The composition of claim 1, wherein said *Neisseria* antigen is selected from the group consisting of a protein, protein-polysaccharide, protein-lipopolysaccharide, polysaccharide, and lipopolysaccharide.

Claim 3 (Previously Presented): The composition of claim 1 or claim 2, wherein said *Neisseria* antigen is from *Neisseria meningitidis* or *Neisseria gonorrhoeae*.

Claim 4 (Original): The composition of claim 3 wherein said *Neisseria* antigen is a *Neisseria meningitidis* serogroup B peptide.

Claim 5 (Canceled).

Claim 6 (Previously Presented): The composition of claim 1, wherein component (b) further comprises a second adjuvant.

Claim 7 (Canceled).

Claim 8 (Previously Presented): The composition of claim 1, wherein said emulsion comprises a metabolizable oil.

Claim 9 (Previously Presented): The composition of claim 8, wherein said emulsion exists in the absence of any polyoxypropylene-polyoxyethylene block copolymer.

Claim 10 (Original): The composition of claim 9, wherein said oil is an animal oil, an unsaturated hydrocarbon, a vegetable oil, or a terpenoid.

Claim 11 (Original): The composition of claim 10 wherein said terpenoid is squalene.

Claim 12 (Previously Presented): The composition of claim 11, wherein said composition comprises 0.5 to 20% by volume of said oil in an aqueous medium.

Claim 13 (Previously Presented): The composition of claim 11, wherein said emulsifying agent comprises a non-ionic detergent or a polyoxyethylene sorbitan mono-, di-, or triester or a sorbitan mono-, di-, or triether.

Claim 14 (Previously Presented): The composition of claim 11, wherein said composition comprises 0.01 to 0.5 % by weight of said emulsifying agent.

Claim 15 (Previously Presented): The composition claim 1, further comprising a separate immunostimulating agent.

Claim 16 (Original): The composition of claim 15 wherein said immunostimulating agent is selected from the group consisting of a bacterial cell wall component and muramyl peptide.

Claim 17 (Previously Presented): The composition of claim 6, wherein said second adjuvant comprises alum, incomplete Freund's adjuvant (IFA), or complete Freund's adjuvant (CFA).

Claim 18 (Previously Presented): The composition of claim 1, wherein said oligonucleotide comprises at least one phosphorothioate bond.

Claim 19 (Previously Presented): The composition of claim 1, wherein said oligonucleotide comprises a nucleotide sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, SEQ ID NO: 25, SEQ ID NO: 26, and SEQ ID NO: 27.

Claim 20 (Previously Presented): The composition of claim 1, wherein said oligonucleotide comprises a CG motif flanked by two purines immediately 5' to said motif and two pyrimidines immediately 3' to said motif.

Claim 21 (Original): The composition of claim 20, wherein said oligonucleotide comprises a nucleotide sequence selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, and SEQ ID NO: 25.

Claim 22 (Canceled):

Claim 23 (Currently Amended): A vaccine composition comprising:

- a) an immunostimulating amount of a *Neisseria meningitidis* serogroup B antigen; and
- b) an immunostimulating amount of an adjuvant composition comprising:
 - (i) an oligonucleotide comprising at least one CG motif; and
 - (ii) an emulsion comprising submicron oil droplets and an emulsifying agent,

wherein the ratio of the emulsifying agent to the oil in said emulsion allows production of an emulsion wherein at least 80% of said oil droplets are less than 1 micron in diameter and wherein the oligonucleotide is at least 6 nucleotides in length and comprises at least one phosphorothioate bond and the CG motif comprises an unmethylated CpG dinucleotide.

Claim 24 (Original): The vaccine composition of claim 23, wherein component (b) further comprises a second adjuvant.

Claims 25-31 (Canceled).

Claim 32 (Withdrawn): A method of stimulating an immune response in a host animal comprising administering to said animal a composition of any one of claims 1 in an amount effective to induce an immune response.

Claim 33 (Withdrawn): The method of claim 32 wherein said host animal is a mammal.

Claim 34 (Withdrawn): A method of immunizing a host animal against Neisseria infection comprising administering to said animal a composition of any one of claims 23 in an amount effective to induce a protective response.

Claim 35 (Withdrawn): The method of claim 34 wherein said host animal is a mammal.

Claim 36 (Withdrawn): The method of claim 35 wherein said mammal is a human.

Claim 37 (Withdrawn): A method of immunizing a host animal against Neisseria meningitidis comprising administering to said animal a composition of any one of claims 23 in an amount effective to induce a protective response, wherein said antigen is a Neisseria meningitidis group B peptide.

Claim 38 (Withdrawn): The method of claim 37 wherein said peptide comprises SEQ ID NO: 31.

Claim 39 (Withdrawn): The method of claim 38 wherein said host animal is a human.

Claim 40-42 (Canceled).

Claim 43 (Previously Presented): The composition of claim 12, wherein the emulsifying agent comprises a non-ionic detergent or a polyoxyethylene sorbitan mono-, di-, or triester or a sorbitan mono-, di-, or triether.

Claim 44 (Previously Presented): The composition of claim 12, wherein said composition comprises 0.01 to 0.5 % by weight of said emulsifying agent.

Claim 45 (Previously Presented): The composition of claim 13, wherein said composition comprises 0.01 to 0.5 % by weight of said emulsifying agent.

Claim 46 (Currently Amended) An immunogenic composition comprising:

(a) an immunostimulating amount of a *Neisseria meningitidis* serogroup B antigen comprising SEQ ID NO: 31; and

(b) an immunostimulating amount of an adjuvant composition comprising:

(i) an oligonucleotide comprising at least one CG motif; and

(ii) an emulsion comprising submicron oil droplets and an emulsifying agent, wherein the ratio of the emulsifying agent to the oil in said emulsion allows production of an emulsion wherein at least 80% of said oil droplets are less than 1 micron in diameter and wherein the oligonucleotide comprises at least one phosphorothioate bond and the CG motif comprises an unmethylated CpG dinucleotide.

Claim 47 (Currently Amended) A vaccine composition comprising:

(a) an immunostimulating amount of a *Neisseria meningitidis* serogroup B antigen comprising SEQ ID NO: 31; and

(b) an immunostimulating amount of an adjuvant composition comprising:

(i) an oligonucleotide comprising at least one CG motif; and

(ii) an emulsion comprising submicron oil droplets and an emulsifying agent, wherein the ratio of the emulsifying agent to the oil in said emulsion allows production of an emulsion wherein at least 80% of said oil droplets are less than 1 micron in diameter and

wherein the oligonucleotide comprises at least one phosphorothioate bond and the CG motif comprises an unmethylated CpG dinucleotide.

Claim 48 (Previously Presented): A vaccine composition of claim 47, wherein component (b) further comprises a second adjuvant.